

REMARKS

This paper is filed in response to the official action dated June 15, 2005 (hereafter, the "official action"). This paper is timely-filed, as it is accompanied by a petition for an extension of time to file in the first month and a check covering the requisite \$120.00 extension fee.

Claims 1-10 are pending in this application. By the foregoing amendments, claims 1 and 6 have been amended, and claims 4 and 10 have been canceled.

Support for the amendments may be found in claims 4 and 10 as originally filed. No new matter has been added.

Claims 1-3 and 5-9 remain at issue.

Claims 1-10 have been rejected under 35 U.S.C. §103(a) as obvious over admitted prior art in view of U.S. Patent No. 6,410,446 to Tsai *et al.* or over admitted prior art in view of U.S. Patent No. 6,365,015 to Shan *et al.*

The various bases for the claim rejections are addressed below in the order presented in the official action. Reconsideration of the application, as amended, is solicited in view of the following remarks.

CLAIM REJECTIONS – 35 U.S.C. §103(a)

Claims 1-10 have been rejected under 35 U.S.C. §103(a) as obvious over admitted prior art in view of U.S. Patent No. 6,410,446 to Tsai *et al.* or over admitted prior art in view of U.S. Patent No. 6,365,015 to Shan *et al.* The applicants respectfully traverse the rejections as applied to amended claims 1-3 and 5-9.

A. INDEPENDENT CLAIM 1 AND DEPENDENT CLAIMS 2, 3, AND 5

Tsai *et al.* neither discloses nor suggests a method of manufacturing a semiconductor device comprising forming an interlayer insulating film including a multi-layered oxide film by performing multiple simultaneous deposition-and-etch processes in order to bury the gate electrode pattern, wherein the interlayer insulating film has a surface refractive index of 1.44 to 1.48, as recited by claims 1-3 and 5. In particular, Tsai *et al.* fails to disclose or suggest *forming an interlayer insulating film having a surface refractive index of 1.44 to 1.48*, and any advantages associated therewith.

The admitted prior art is similarly deficient.

The Applicant has found that forming an interlayer insulating film having the recited surface refractive index obviates the need to perform any subsequent planarization processes. Therefore, the Applicant respectfully submits that Tsai *et al.*, whether taken alone or in combination with admitted prior art, fails to disclose or suggest a method of manufacturing a semiconductor device comprising forming an interlayer insulating film having a surface refractive index of 1.44 to 1.48, as recited by claims 1-3 and 5.

Similarly, Shan *et al.* does not disclose or suggests a method of manufacturing a semiconductor device comprising forming an interlayer insulating film including a multi-layered oxide film by performing multiple simultaneous deposition-and-etch processes in order to bury the gate electrode pattern, wherein the interlayer insulating film has a surface refractive index of 1.44 to 1.48, as recited by claims 1-3 and 5. In particular, Shan *et al.* fails to disclose or suggest *forming an interlayer insulating film having a surface refractive index of 1.44 to 1.48*, and any advantages associated therewith.

In view of the advantage associated with forming an interlayer insulating film having a surface refractive index of 1.44 to 1.48, the Applicant respectfully submits that Shan *et al.*, whether taken alone or in combination with admitted prior art, fails to disclose or suggest a method of manufacturing a semiconductor device, as recited by claims 1-3 and 5.

In view of the foregoing remarks, the Applicant submits that a *prima facie* case of obviousness has not been established, and the rejections of claims 1-3 and 5 as assertedly obvious over admitted prior art in view of Tsai *et al.* or Shan *et al.* should therefore be withdrawn.

B. INDEPENDENT CLAIM 6 AND DEPENDENT CLAIMS 7-9

For at least the reasons provided above, the Applicant respectfully submits that the proposed combinations of admitted prior art and Tsai *et al.* or Shan *et al.* neither disclose nor suggest a method of manufacturing a semiconductor device comprising forming a second HDP oxide film over the entire structure by performing a second deposition and etch process simultaneously, wherein the second HDP oxide film has a surface refractive index of 1.44 to 1.48, as recited by claims 6-9.

Accordingly, the rejections of claims 6-9 as assertedly obvious over admitted prior art in view of Tsai *et al.* or Shan *et al.* should be reversed.

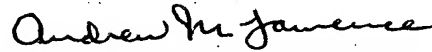
CONCLUSION

It is submitted that the application is in condition for allowance. Should the examiner wish to discuss any matter of form or procedure in an effort to advance this application to allowance, he is respectfully invited to telephone the undersigned attorney at the indicated telephone number.

Respectfully submitted,

MARSHALL, GERSTEIN & BORUN LLP

October 17, 2005



Andrew M. Lawrence, Reg. No. 46,130
Attorney for Applicant
6300 Sears Tower
233 S. Wacker Drive
Chicago, Illinois 60606-6357
(312) 474-6300